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Michigan Senate Energy & Technology
September 17, 2015

Michigan Independent Hydroelectric Power Producers

- William Stockhausen: Elk Rapids Hydroelectric Power, LLC, Northville, MI
- Victor Leabu: White's Bridge Hydro Co., Brighton, MI
- Lee Mueller: Boyce Hydro, LLC, Edenville, MI
- Nelson Turcotte: Alverno, Tower-Kleber Hydro, Northwoods Hydropower, Inc.

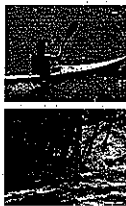
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Hydro Facts

- 2,500 dams in Michigan
- 330 MW from 80 operating hydros
 - 19 small IPPs w/ Consumers Energy
- 55 retired – about 30 MW
- 750 could be retrofitted – about 100 MW.

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Hydro Facts



- Domestic & Secure
 - Water supply is not subject to disruption
 - foreign suppliers
 - cost & economics
 - fuel transportation
- Renewable, sustainable, natural energy
- Efficient – 85-90% overall
- Clean – no pollution or toxic byproducts of any sort
- Only 3% produce power
- 1.3% of Michigan total electricity (7% nationwide)
 - 28% of Michigan's renewables (52% nationwide).

Hydro Facts

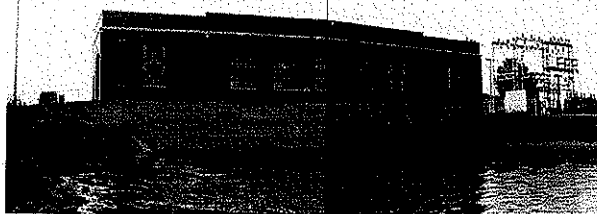
- Firm, reliable power
 - Black start capability = quick response to outages
 - Predictable, controllable, adjustable
- 60%+ capacity factor
- 100+ year life span
- Revenue provides for maintenance, upkeep, operations
 - Pays taxes, licensing fees
 - Employs operators, skilled trades, suppliers and services
- Public recreation, lakefront property value, fish & wildlife

Bellevue Mill



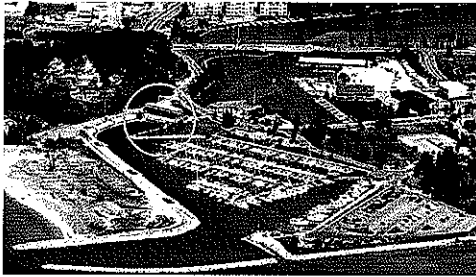
- Built 1854
 - Shut down 1955
 - Shown here in 1975
- Restoration 1977, ongoing
 - 45kW – electricity for 50 homes

Elk Rapids Hydro



- Built 1916
- Generators decommissioned 1965
- Shown here in 1984
 - 700 kW – electricity for 770 homes

Elk Rapids Hydro



- Recommissioned 2013
- Marinas, Elk River, Grand Traverse Bay

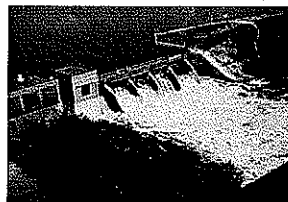
Tower Kleber Hydro

- DNR/MSU sturgeon partnership
 - FERC licensing agreement w/ DNR, MSU
 - Provides buildings, water, maintenance
- Cheboygan River threatened species
 - Management tool MSU's threatened species recovery
- 2.76 MW – 3000 homes



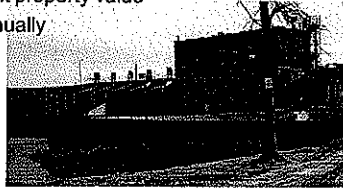
White's Bridge Hydro Co.

- Owned since 1982, repowered 1984
 - Built in 1896 / City of Lowell
 - Rebuilt 1935
- 750 kW – 825 homes
 - Distribution level connection
- PPA expires 2016



Boyce Hydro

- Four projects totaling 10.5 MW – 7500 homes
 - 12 employees
 - Purchase of local goods & services
 - Flood plain management / flood control
 - Millions in lakefront property value
 - \$60,000 taxes annually



Boyce Hydro

- Sanford Dam: 3.3 MW Midland Co.
 - 1100 lakefront properties
 - \$3 million recent improvements
- Wixom Reservoir: 4.8 MW Gladwin Co.
 - 3600 lakefront properties
- Secord Reservoir: 1.2 MW Gladwin Co.
- Smallwood Reservoir: 1.2 MW Gladwin Co.
 - \$40,000 per year in Gladwin Co. taxes



Requested Legislative Support

- Clear statutory support to PSC
 - Set and update avoided cost
- IRP = 'hope for the best'
 - Timeframe does not accommodate expiring PPAs
 - Not consistent with PURPA
- Require the PSC report annually
 - Rules, regulations and determination
- Not unique to small hydro
 - Biomass
 - Anaerobic digesters
 - Geothermal
 - LFG
 - MSW

Why support small hydro?

- Clean, renewable, sustainable
- Stable pricing
- Low operating expense
 - High capital / compliance costs
- Baseload "black start"
- Grid support
- Recreational properties
- Fish & wildlife habitat
- Local jobs & tax base
